

**TCAP Achievement, Grade 7, Mathematics**  
**Criterion Referenced Test (CRT) Reporting Categories with State Performance Indicators (SPI)**

<b>Number and Operations</b>	
<b>SPI#</b>	<b>State Performance Indicator</b>
7.1.1	identify prime and composite numbers up to 50
7.1.2	compute efficiently and accurately with whole numbers, fractions, and decimals
7.1.3	represent numbers using a variety of equivalent forms (i.e., mixed numbers, fractions, decimals, percents, and integers)
7.1.4	compare rational numbers using the appropriate symbol ( $<$ , $>$ , $=$ )
7.1.5	identify the opposite and the reciprocal of a rational number
7.1.6	connect percents greater than 100 and percents less than one to real-world situations
7.1.7	apply order of operations when computing with whole numbers (no more than two parentheses and no exponents)
7.1.9	use estimation strategies to select a reasonable solution to a computation involving rational numbers
7.1.10	select a reasonable solution to a real-world division problem in which the remainder must be considered
7.1.11	connect rational numbers to locations on the number line
7.1.12	use ratios to represent quantitative relationships
<b>Algebraic Thinking</b>	
<b>SPI#</b>	<b>State Performance Indicator</b>
7.2.1	extend geometric and numerical patterns
7.2.2	apply function rules
7.2.4	generalize patterns in data represented in tables and graphs
7.2.5	represent mathematical statements and real-world situations using symbols
7.2.6	evaluate algebraic expressions for a given value of up to two variables
7.2.7	solve one-step linear equations
7.2.9	identify whole numbers that satisfy a given one-variable linear inequality
7.5.8	use proportional thinking to make conjectures about results of experiments and simulations
<b>Graphs and Graphing</b>	
<b>SPI#</b>	<b>State Performance Indicator</b>
7.2.10	select the scatter plot that represents the data in tabular form
7.2.11	interpret graphs which represent rates of change
7.3.5	use ordered pairs to describe given points in a coordinate system
7.5.5	make predictions based on data
<b>Real World Problem Solving</b>	
<b>SPI#</b>	<b>State Performance Indicator</b>
7.1.8	solve one- and two-step real-world problems involving whole numbers, fractions, and decimals
7.2.3	extend rate charts to solve real-world problems
7.2.8	solve real-world problems involving one-step linear equations
7.3.7	apply spatial reasoning and visualization to solve real-world problems
7.4.8	solve problems involving scale factors using ratios and proportions
<b>Data Analysis and Probability</b>	
<b>SPI#</b>	<b>State Performance Indicator</b>
7.5.1	interpret bar and line graphs to answer questions and solve real-world problems
7.5.2	interpret circle graphs displaying real-world data
7.5.3	determine the mean for a data set
7.5.4	determine the median for a data set
7.5.6	use a tree diagram or organized list to determine all possible outcomes of a simple compound event
7.5.7	connect data sets and their graphical representation (i.e., bar graphs, stem-and-leaf plots, box plots, and scatter plots)
7.5.9	connect the symbolic representation of a probability to an experiment

**SPI# -- Grade Level. Content Standard Number. Performance Indicator Number**

**Please refer questions about this list to the Tennessee Department of Education, Evaluation and Assessment. 10/28/03**

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<b>Measurement</b>	
<b>SPI#</b>	<b>State Performance Indicator</b>
7.4.1	apply formulas to determine the areas of rectangles and triangles
7.4.2	determine the distance between two points on the x- or the y-axis in Quadrant I
7.4.3	convert from one unit to another within the same system
7.4.4	select units of appropriate size and type to measure angles, perimeter, area, surface area, and volume
7.4.5	apply formulas to determine the area of parallelograms, trapezoids, and circles
7.4.6	estimate length, perimeter, circumference, area, and volume using a variety of strategies
7.4.7	find or estimate the area of irregular and complex shapes
<b>Geometry</b>	
<b>SPI#</b>	<b>State Performance Indicator</b>
7.3.1	identify the results of transformations of two-dimensional figures (i.e., turns/rotations, flips/reflections, slides/translations)
7.3.2	classify triangles by angle, size, and length of sides
7.3.3	determine congruence of line segments, angles, and polygons
7.3.4	classify polygons by properties
7.3.6	determine the measure of an angle of a triangle given the measures of the other two angles